Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1)   (previously presented) A computer system operation method for facilitating viewing of a computer generated model on a display, the method comprising:

  selecting a projection plane for a three dimensional model; and

  displaying a two dimensional visualization of a projection of the model in the projection plane, wherein the projection plane is the plane of the display.

2)   (previously presented) The method of claim 1 wherein the display of the two dimensional visualization is limited to pixel data.

3)   (previously presented) The method of claim 1 additionally comprising activation of a manipulator tool button to cause the displaying of the two dimensional model.

4)   (previously presented) The method of claim 1 additionally comprising activation of a manipulator quadrant device to modify the projection plane.

5)   (previously presented) A software control method comprising:

  displaying a graphical user interface manipulator comprising quadrants, wherein each quadrant comprises a programmable interactive device;

  associating each quadrant with a direction in relation to an orthogonal axis;

  activating an interactive device comprising a quadrant; and

  rotating a projection plane of a computer generated model a predetermined number of degrees in a predetermined direction around an orthogonal axis associated with a selected quadrant.

6)   (previously presented) The software control method of claim 5 additionally comprising:

  displaying a programmable interactive button;

activating the programmable interactive button; and

displaying a visualization of a computer generated model responsive to activation of the programmable interactive button.

7) (previously presented) A graphical manipulator software tool comprising:

a graphical user interface object comprising quadrants, wherein each quadrant is associated with a direction in relation to an orthogonal axis; and

a programmable interactive device corresponding with a quadrant and responsive to activation by a pointing device, wherein activation of the interactive device causes a projection plane of a computer generated model to rotate a predetermined number of degrees in a predetermined direction.

8) (previously presented) A projection plane manipulator software tool comprising:

a user interactive device tracking the circumference of a circle displayed on a computer screen with a computer generated model, wherein selecting the interactive device and rotating it in a clockwise or counter-clockwise direction will cause a projection plane of the computer generated model to rotate about an axis which is perpendicular to the projection screen.

9) (previously presented) The projection plane manipulator software tool of claim 8 additionally comprising:

an interactive menu for selecting a mode of operation governing the rotation of the interactive device about the circumference of the circle.

10) (previously presented) The projection manipulator software tool of claim 9 wherein the mode of operation comprises free hand rotation.

11) (previously presented) The projection manipulator software tool of claim 9 wherein the mode of operation comprises incremental rotation.

12) (previously presented) The projection manipulator software tool of claim 9 wherein the mode of operation comprises entering an angle of rotation.

13) (previously presented) A projection creation software tool comprising:

a computer generated model displayed on a computer display;

a programmable user interactive device, wherein activation of the interactive device displays a visualization of the projection of the model with a projection plane equal to the plane of the computer display.

14) (previously presented) The projection creation software tool of claim 13 wherein activation of the user interactive device is accomplished by clicking a pointing device controlling a cursor while the cursor is positioned over the interactive device.

15) (previously presented) The projection creation software tool of claim 13 wherein the user interactive device is incorporated into a graphical manipulator software tool.

16) (previously presented) A method of creating an isometric view of a computer generated model of an object, the method comprising:

selecting an initial projection plane;

activating a user interactive device on a graphical view manipulator causing the projection plane to rotate a first amount not equal to 90° around an axis that is perpendicular to the current projection plane;

activating a first quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around one of two orthogonal axis of the model;

activating a second user interactive device on a graphical view manipulator causing the projection plane to rotate a second amount not equal to 90° around an axis that is perpendicular to the current projection plane; and

activating a second quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around a second of two orthogonal axis of the model.

17) (previously presented) The method of claim 16 wherein the first interactive device is a rotational arrow interactive device.

18)   (previously presented) The method of claim 16 wherein the first interactive device is a
       manipulator pin.

19)   (previously presented) An interactive software tool comprising:
       a graphical user interface object comprising quadrants, wherein each quadrant is associated with a
       direction in relation to an orthogonal axis;
       a first programmable interactive device corresponding with a quadrant and responsive to
       activation by a pointing device, wherein activation of the first interactive programmable
       interactive device causes a projection plane of a computer generated model to rotate a
       predetermined number of degrees in a predetermined direction;
       a second programmable interactive device tracking the circumference of a circle displayed on a
       computer screen with a computer generated model, wherein selecting the second interactive
       device and rotationally moving the second interactive device will cause a projection plane of the
       computer generated model to rotate about an axis which is perpendicular to the projection screen;
       an interactive menu for selecting a mode of operation governing the rotation of the interactive
       device about the circumference of the circle; and
       a third interactive device displayed on the computer display, wherein activation of the third
       interactive device displays a visualization of the projection of the model with a projection plane
       equal to the plane of the computer display.

20)   (previously presented) Computer executable code stored on a computer readable medium, the
       code causing a computer to take steps comprising:
       selecting a projection plane for a three dimensional model; and
       displaying a two dimensional visualization of a projection of the model in the projection plane,
       wherein the projection plane is the plane of the display.

21)   (previously presented) Computer executable code stored on a computer readable medium, the
       code causing a computer to take steps comprising:
       selecting an initial projection plane of a three-dimensional model;
       activating a user interactive device on a graphical view manipulator causing the projection plane

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to rotate a first amount not equal to 90° around an axis that is perpendicular to the current

projection plane;

activating a first quadrant on a graphical view manipulator causing the projection plane to rotate

by 90° around one of two orthogonal axis of the model;

activating a second user interactive device on a graphical view manipulator causing the projection

plane to rotate a second amount not equal to 90° around an axis that is perpendicular to the

current projection plane; and

activating a second quadrant on a graphical view manipulator causing the projection plane to rotate by

90° around a second of two orthogonal axis of the model.

22.   (previously presented) A computer system operation method for displaying a three-dimensional

model on a display, the method comprising the steps of:

generating a two dimensional visualization of the three-dimensional model, said three-

dimensional model in a first projection plane;

receiving a second projection plane associated with said two-dimensional visualization;

displaying said two-dimensional visualization in said second projection plane; and

generating the projection of said three-dimensional model in said second projection plane.

23)   (previously presented) The method of claim 22 wherein the display of the two dimensional

visualization is limited to pixel data.

24)   The method of claim 22 additionally comprising activation of a manipulator tool button to cause

the displaying of the two dimensional model.

25)   (previously presented) The method of claim 22 additionally comprising activation of a

manipulator quadrant device to modify the projection plane.

26.   (previously presented) The method of claim 22, wherein said steps of receiving a projection

plane and

displaying said two-dimensional visualization in said projection plane are iteratively repeated,

and wherein the step of generating the projection of said three-dimensional model in said projection plane includes the step of:

      receiving an approval for said projection plane; and

      displaying said three-dimensional model in said projection plane after receiving said approval.

27.   (previously presented) The method of claim 22, wherein the step of receiving a selected projection plane includes the step of:

      providing a manipulator tool button for selecting said projection plane.

28.   (previously presented) The method of claim 27, wherein said manipulator tool includes a plurality of quadrants, each of said plurality of quadrants representing a predetermined number of degrees of rotation in a predetermined direction around an orthogonal axis, wherein the step of receiving a selected projection plane includes the step of:

      receiving a selected one of said plurality of quadrants; and

      rotating said projection plane said predetermined number of degrees and in said predetermined direction around said orthogonal axis associated with said selected quadrant.

29.   (previously presented) The method of claim 28, wherein said manipulator tool includes a programmable interactive button and wherein the step of displaying said two-dimensional visualization in said projection plane includes the step of:

      displaying said two-dimensional visualization in said projection plane in response to an activation of the programmable interactive button.

30.   (previously presented) A projection plane manipulator tool for manipulating a projection plane wherein a two-dimensional visualization of a three-dimensional model is generated and displayed on a computer screen in a first projection plane, said first projection plane associated with said two-dimensional visualization being manipulated to a second projection plane and wherein said three-dimensional model is thereafter projected in said second projection plane, said projection plane manipulator tool comprising:

a user interactive device tracking the circumference of a circle displayed on said computer screen, wherein selecting the interactive device and rotating it in a clockwise or counter-clockwise direction will cause said projection plane to rotate about an axis which is perpendicular to the computer screen.

Claims – 31- 41 (cancelled - allowed in parent)